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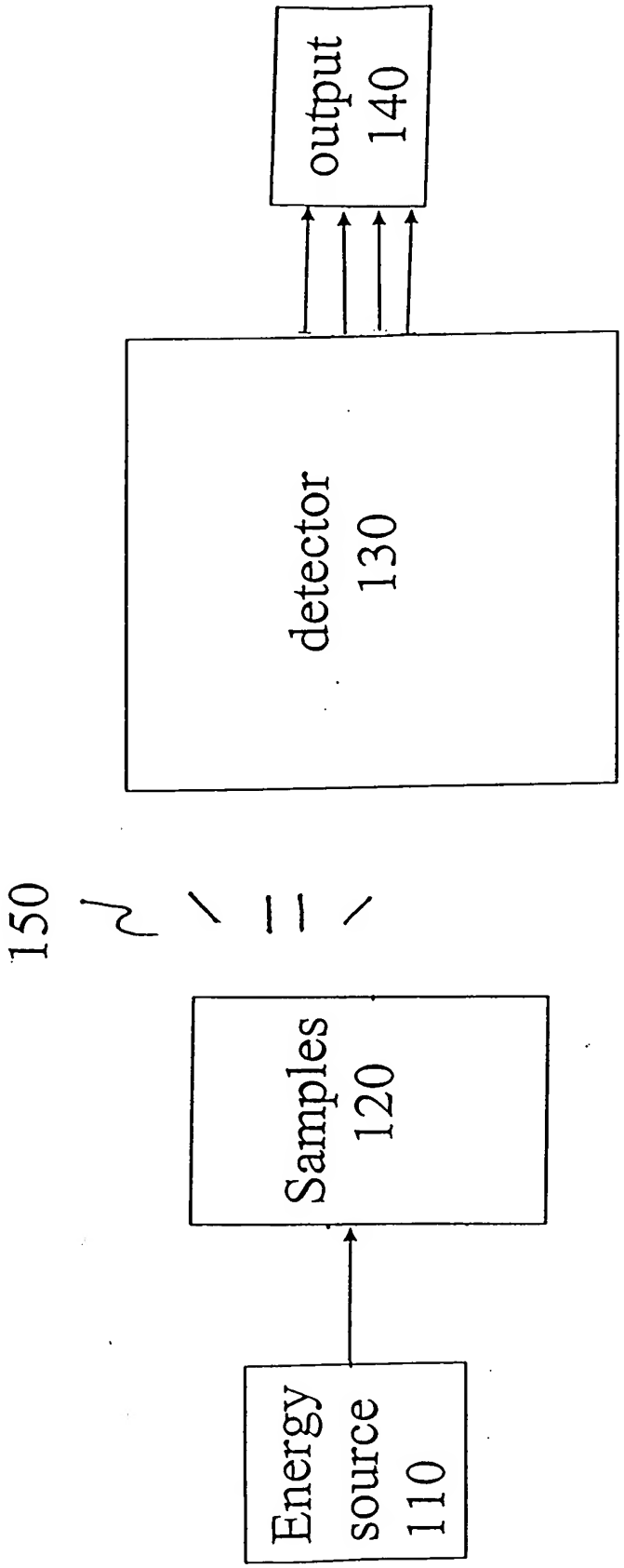
output
140
detector
130
150
100
Samples
120
Energy
source
110

FIG. 1

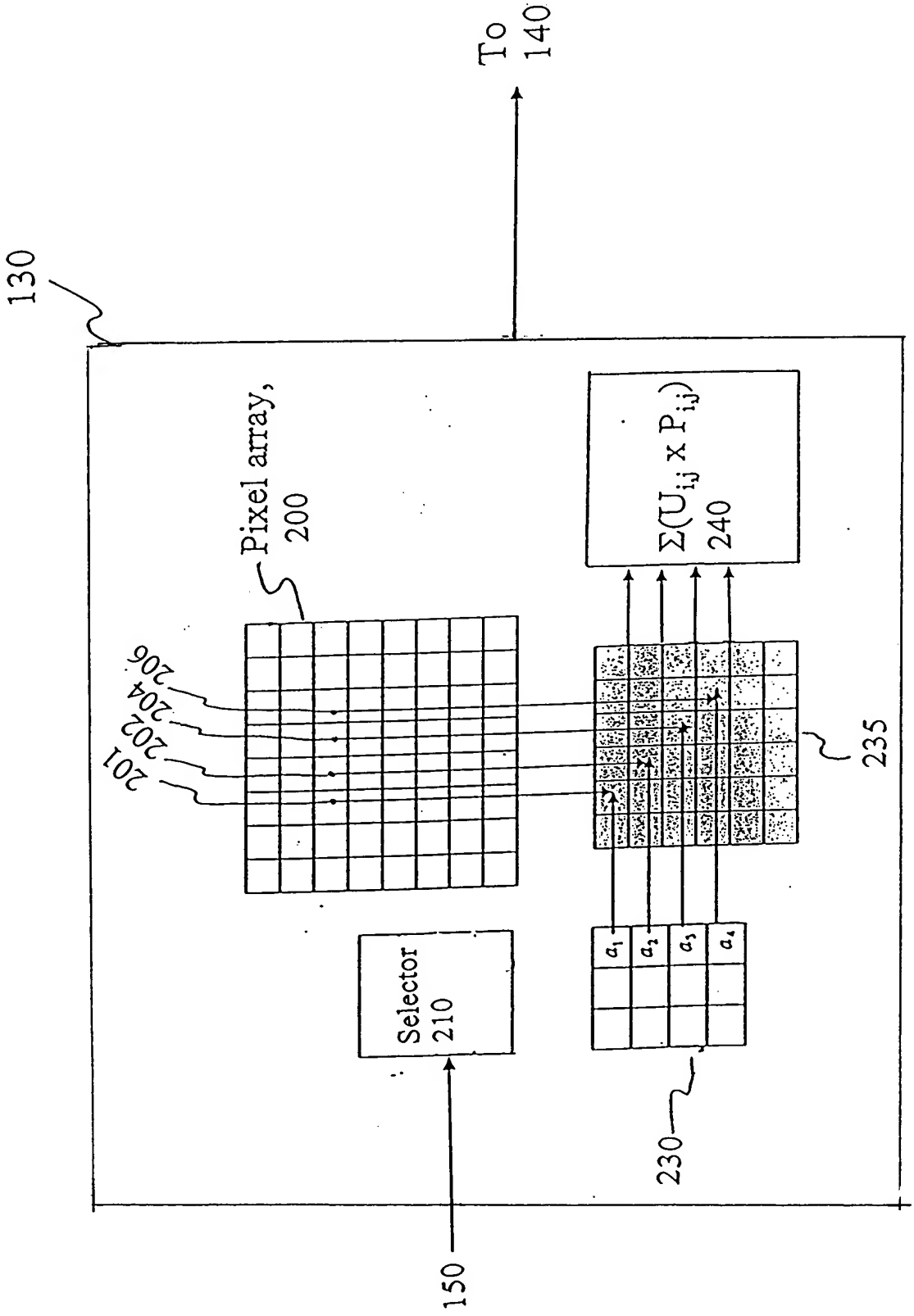
To 140
130
Pixel array, 200
$\Sigma(U_{ij} \times P_{ij})$ 240
201
202
204
206
235
Selector 210
a_1
a_2
a_3
a_4
230
150

FIG. 2

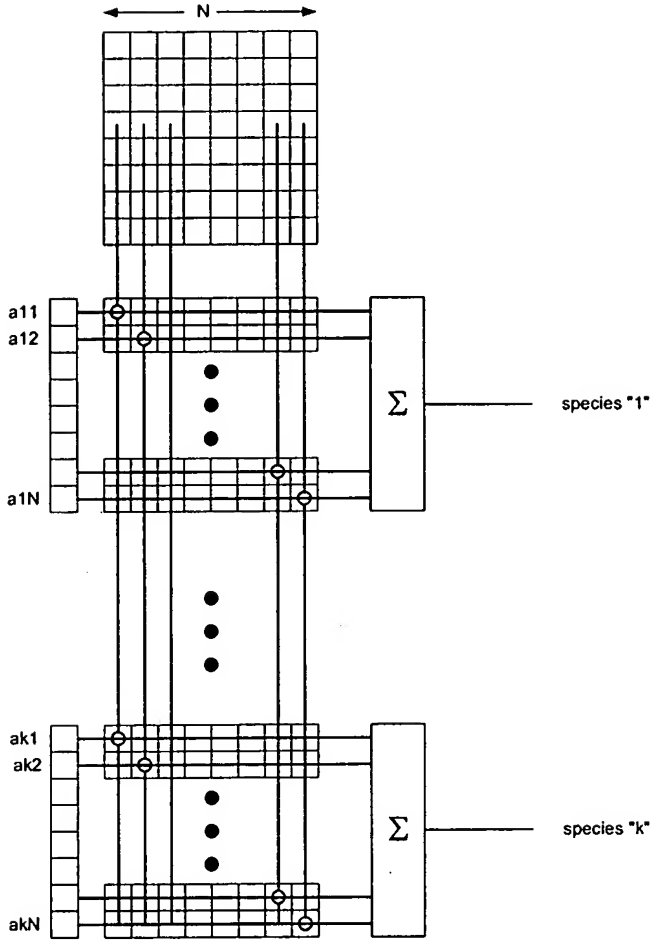

FIG. 3

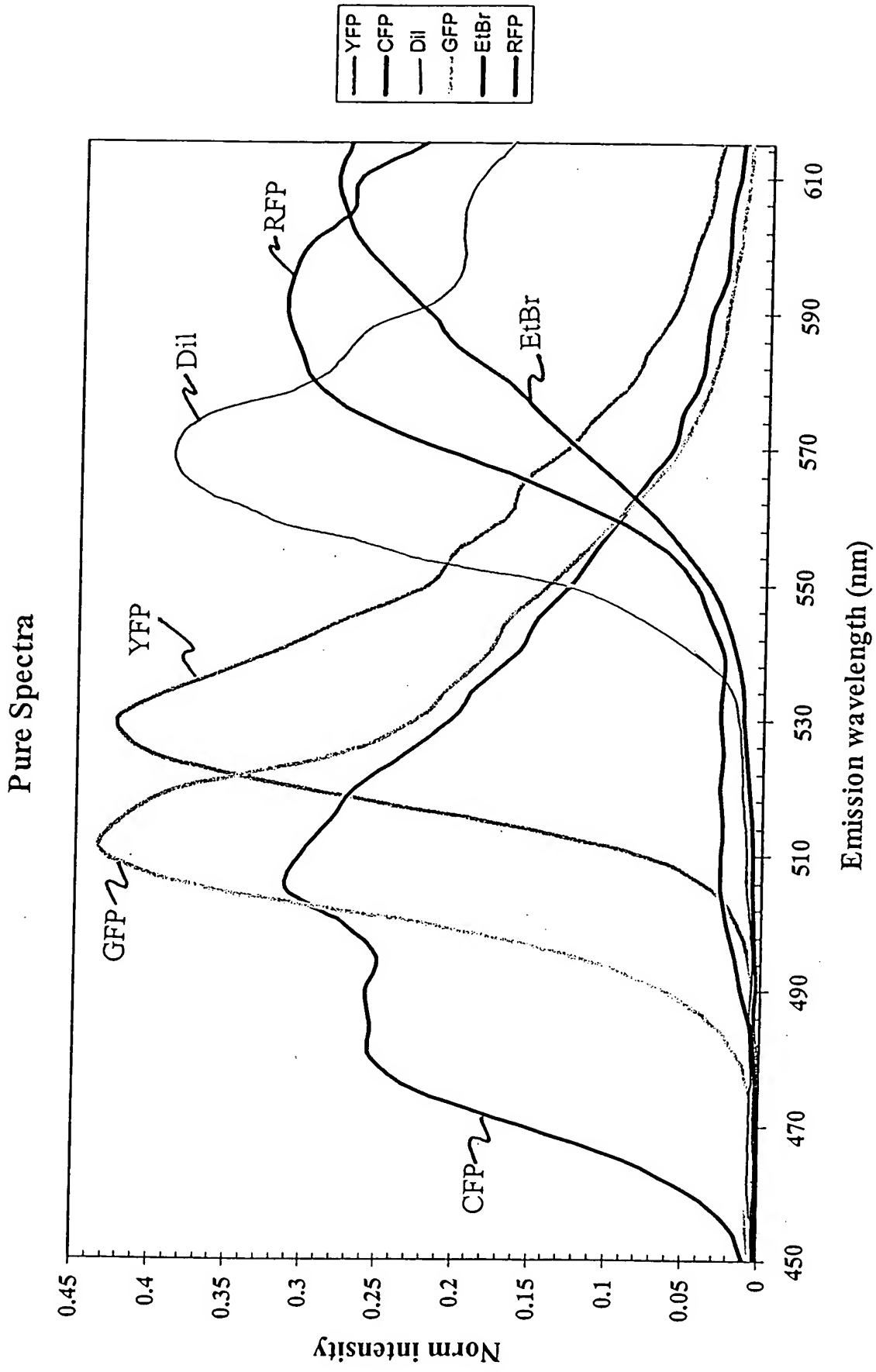
YFP
CFP
Dil
GFP
EtBr
RFP
Pure Spectra
Norm intensity
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
450
470
490
510
530
550
570
590
610
Emission wavelength (nm)
GFP
YFP
Dil
RFP
EtBr
CFP

FIG. 4

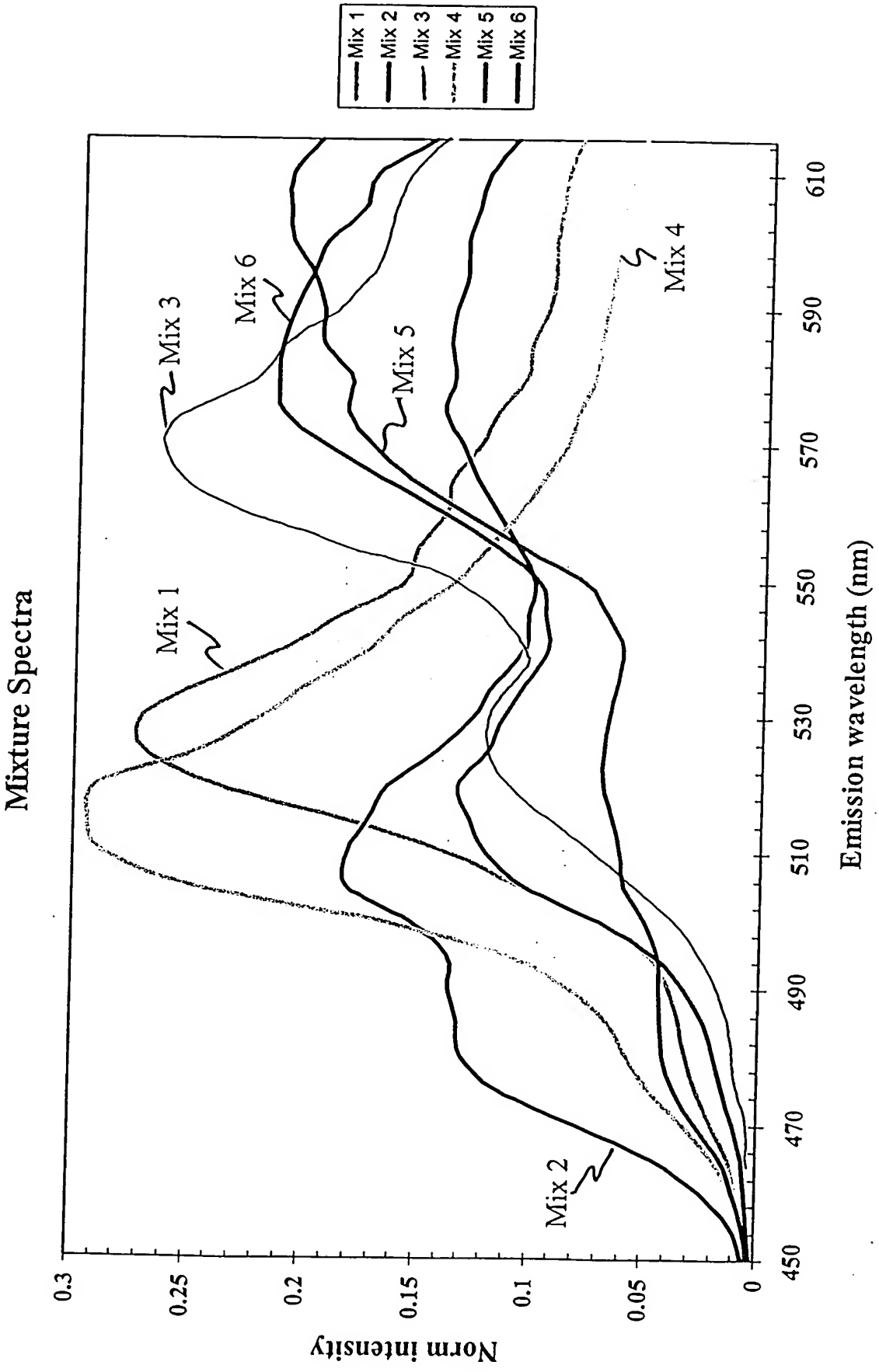
Mix 1
Mix 2
Mix 3
Mix 4
Mix 5
Mix 6
Mixture Spectra
Norm intensity
0.3
0.25
0.2
0.15
0.1
0.05
0
450
470
490
510
530
550
570
590
610
Emission wavelength (nm)

FIG 5A

Table 1. Synthetic Mixture Spectra

Synthetic Mixture Spectra

% YFP	50	1	19	15	5	10		0	0.5	1	2	4	10
% CFP	10	50	1	19	15	5		10	10	10	10	10	10
% DiI	5	10	50	1	19	15		10	10	10	10	10	10
% GFP	15	5	10	50	1	19		10	10	10	10	10	10
% EtBr	19	15	5	10	50	1		60	60	60	60	60	60
% RFP	1	19	15	5	10	50		10	9.5	9	8	6	0
Total	100	100	100	100	100	100	0	100	100	100	100	100	100
Mixture #	1	2	3	4	5	6		7	8	9	10	11	12

FIG. 5B

Attorney: John W. Peck, Ph.D.
Docket No.: 51669/JWP/C766
Inventor(s): Bearman et al.
Title: HIGH THROUGHPUT RECONFIGURABLE DATA ANALYSIS SYSTEM
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Fairly constant background concentrations

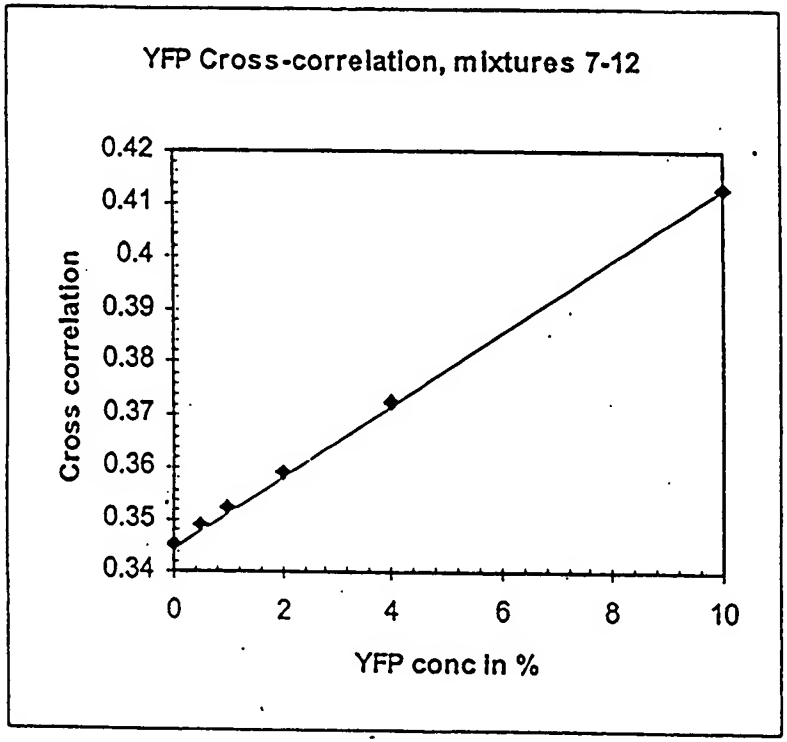

FIG. 6A

Varying background concentrations

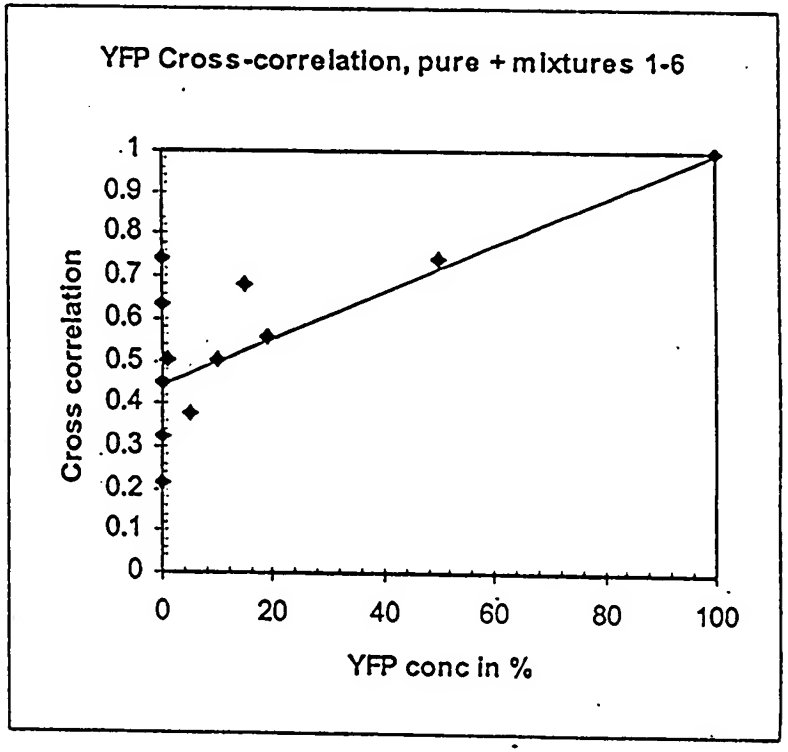

FIG. 6B

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Title: HIGH THROUGHPUT RECONFIGURABLE DATA ANALYSIS SYSTEM
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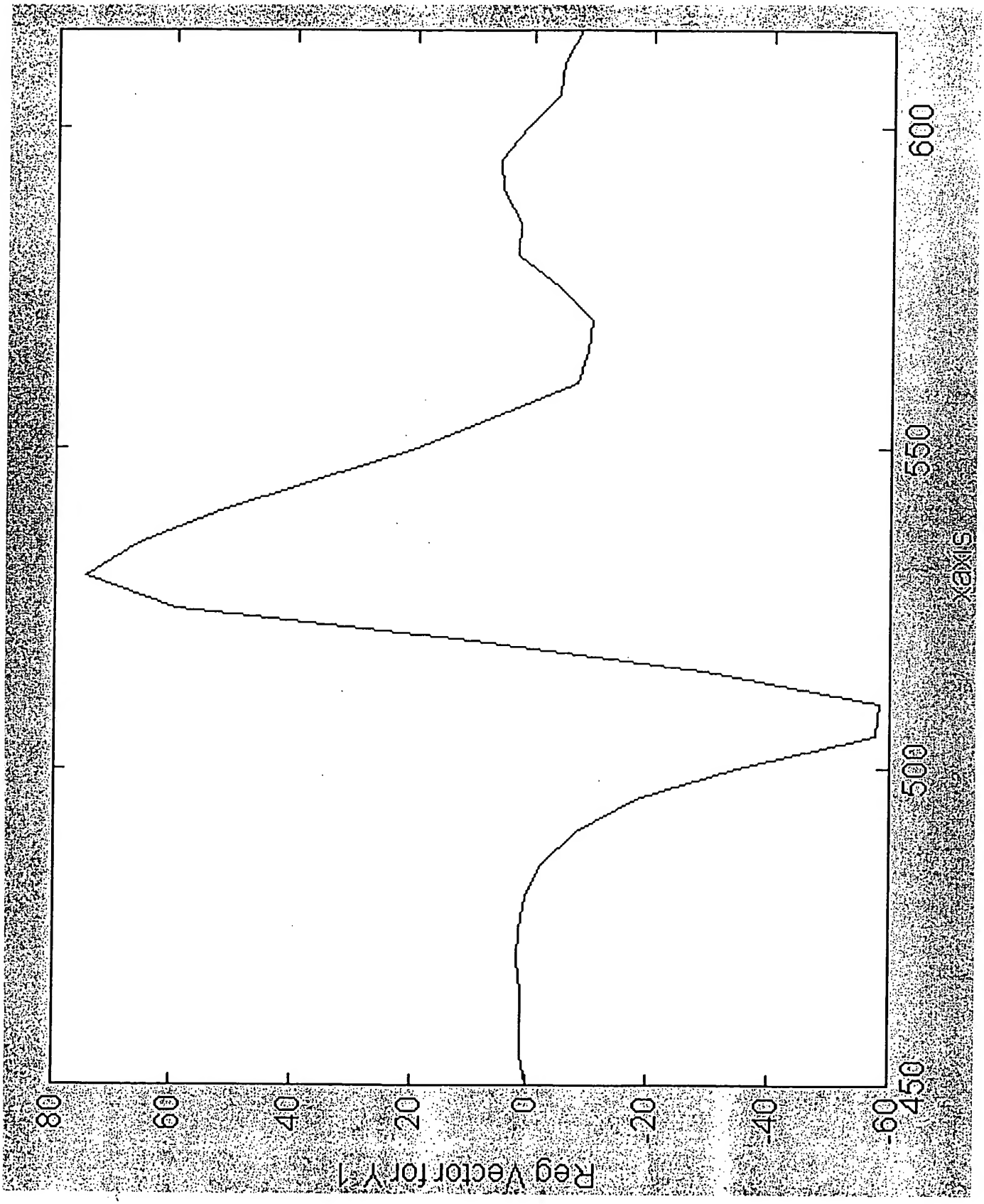

FIG. 7

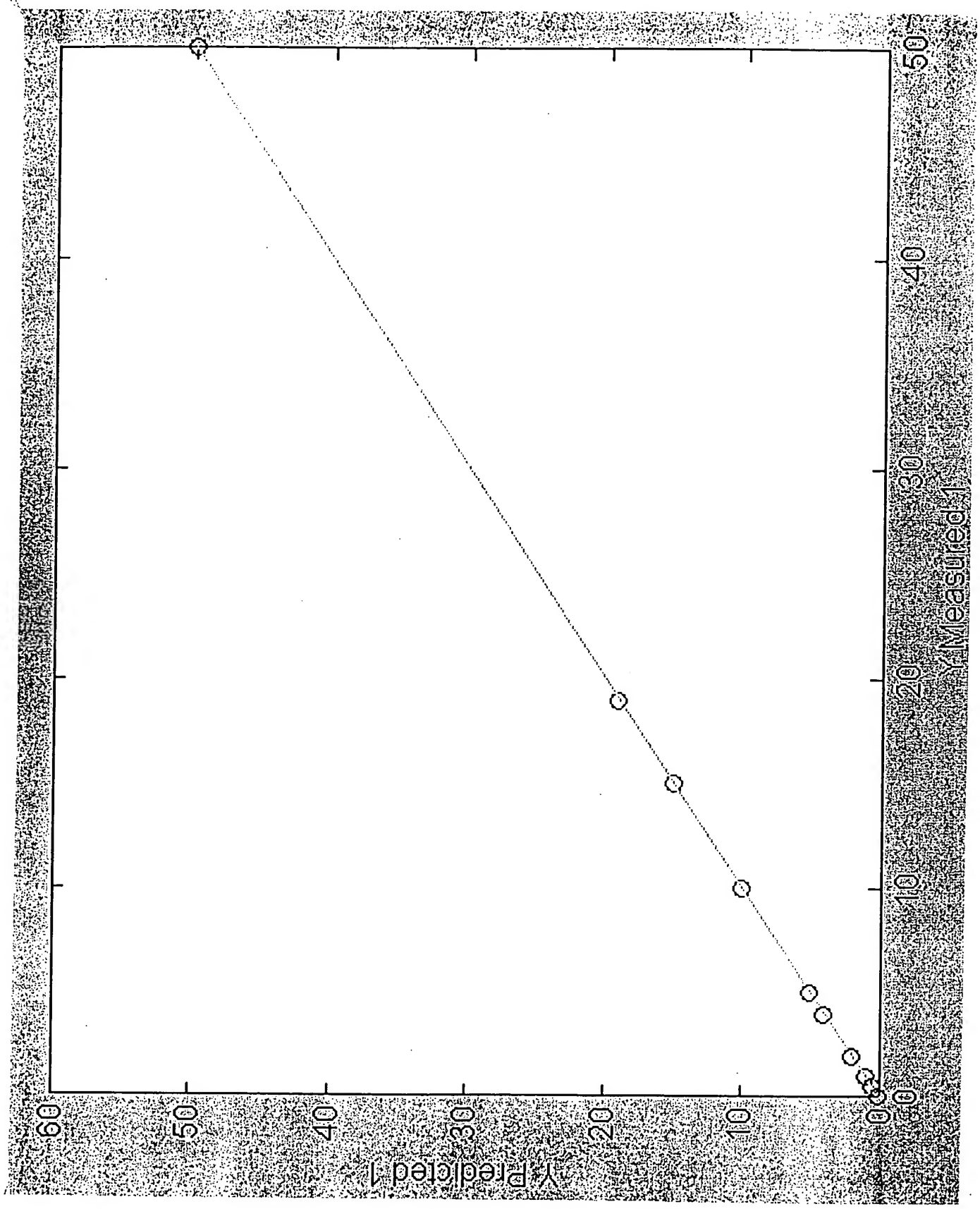

FIG. 8

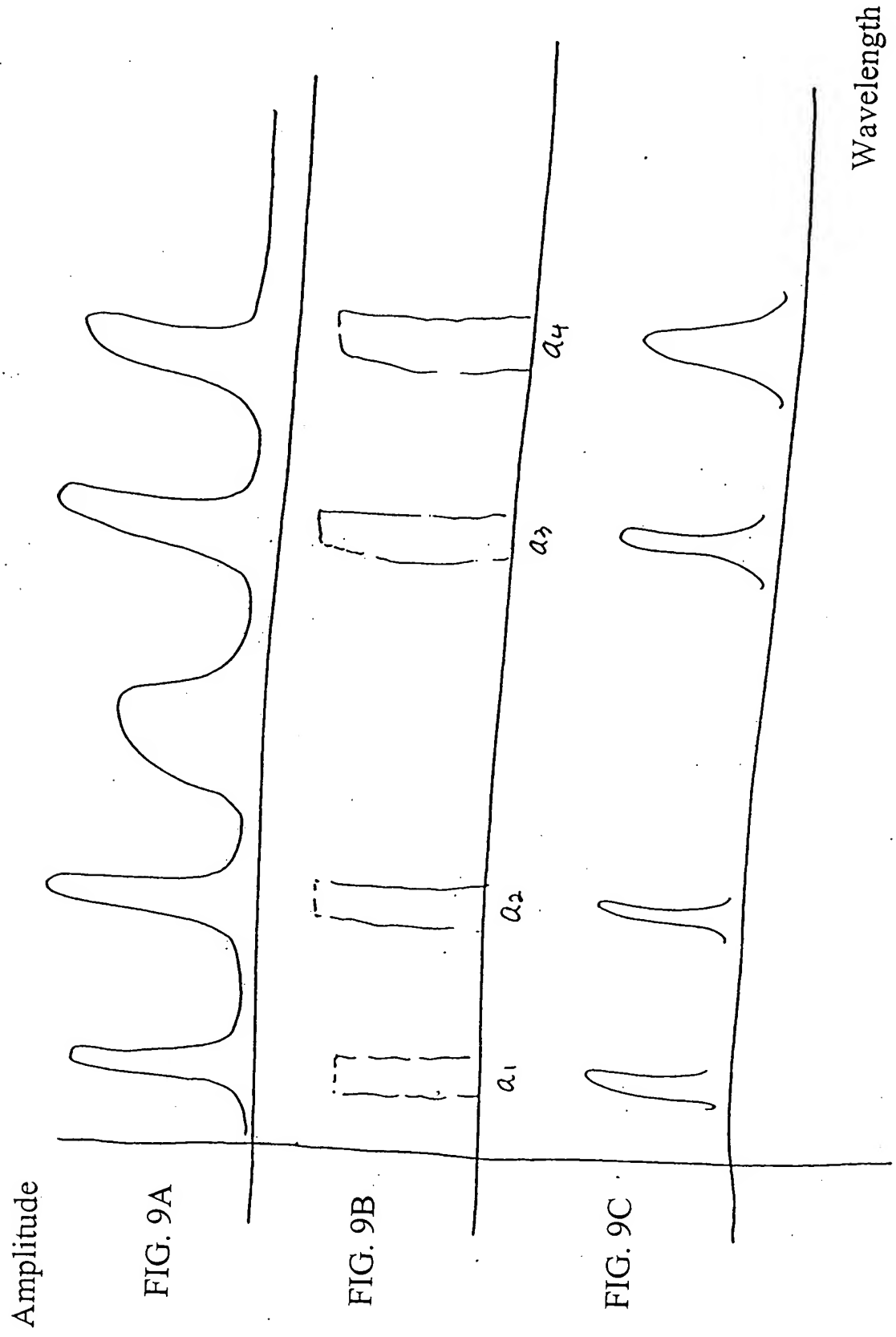

FIG. 9A

FIG. 9B

FIG. 9C